COLORADO DISCHARGE PERMIT SYSTEM (CDPS)
FACT SHEET TO MODIFICATION 2
PERMIT NUMBER CO0000671
HOLCIM (US) INC., PORTLAND PLANT
FREMONT COUNTY

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I. TYPE OF PERMIT

A. Permit Type: Modification 2 – Minor Amendment
B. Discharge To: Surface Water

II. FACILITY INFORMATION

A. SIC Code: 3241 (Cement Manufacturing)

B. Facility Classification: Class D per Section 100.6.2 of the Water and Wastewater Facility Operator Certification Requirements

C. Facility Location: Latitude: 38° 23' 55.306 " N, Longitude: 105° 01' 72.438 " W

D. Permitted Features:

Outfall	Latitude, Longitude	Design Capacity, MGD	Wastewater Source	Receiving Water
002A	38° 23' 17 " N, 105° 00' 56" W	0.2	WWTP Effluent/ WTP, cooling water Underflow/Backwash, normally recirculates / Stormwater (Logistics area)	Arkansas River
003A	38° 23' 13 " N, 105° 00' 47" W	0.15	WWTP Effluent, normally recirculates	Arkansas River
007A	38° 22'55.40 " N, 105° 00' 11.65" W	0.7	Stormwater/Groundwater (Quarry, East Pit)	Arkansas River
009A	38° 23' 13 " N, 105° 00' 47.01" W	0.15	Internal Outfall (WWTF sump pump) for WWTF effluent to accommodate Outfalls 002A and 003A discharge	Arkansas River

III. PURPOSE OF MODIFICATION

This modification is being completed to consider the facility requests (submitted in two separate modification requests, dated October 31, 2012 and February 6, 2013) for:

1. Removing Outfall 006A from the permit. The outfall 006A will be covered under Stormwater permit number COR900000 Certification Number: COR900923
2. Reducing the design capacity of outfall 007A from 1.2 MGD to 0.7 MGD and changing the receiving water from Bear Creek to the Arkansas River. Reducing the design capacity of outfall 002A from 1.5 to 0.2 MGD (resulting in a combined flow of 0.9 MGD for 002A and 007A)
3. Reducing the frequency of monitoring point 300I, the intake to the wastewater treatment facility

IV. CHANGES TO PERMIT

Items 1 and 2: Outfall 006A (Table 1) has been removed from the permit based on a General permit certification no COR900923 which covers discharge from the outfall. Changes have been made to outfall 007A in terms of its design capacity and receiving water (Table 1). The Division reduced the design capacity of outfall 002A.

Table 1. Old outfall list for the facility

Outfall	Latitude, Longitude	Design Capacity, MGD	Wastewater Source	Receiving Water
002A	38° 23' 17 " N, 105° 00' 56" W	1.5	WWTP Effluent/ WTP, cooling water Underflow/Backwash, normally recirculates / Stormwater (Logistics area)	Arkansas River
003A	38° 23' 13 " N, 105° 00' 47" W	0.15	WWTP Effluent, normally recirculates	Arkansas River
006A	38° 23' 13 " N, 105° 00' 47" W	2.0	Stormwater/Groundwater (Plant area)	Arkansas River
007A	38° 23' 26 " N, 105° 00' 14" W	1.2	Stormwater/Groundwater (Quarry, East Pit)	Bear Creek
009A	38° 23' 13 " N, 105° 00' 47.01" W	0.15	Internal Outfall (WWTF sump pump) for WWTF effluent to accommodate Outfalls 002A and 003A discharge	Arkansas River

Table 2. New outfall list for the facility

Outfall	Latitude, Longitude	Design Capacity, MGD	Wastewater Source	Receiving Water
002A	38° 23' 17 " N, 105° 00' 56" W	0.2	WWTP Effluent/ WTP, cooling water Underflow/Backwash, normally recirculates / Stormwater (Logistics area)	Arkansas River
003A	38° 23' 13 " N, 105° 00' 47" W	0.15	WWTP Effluent, normally recirculates	Arkansas River
007A	38° 22'55.40 " N, 105° 00' 11.65" W	0.7	Stormwater/Groundwater (Quarry, East Pit)	Arkansas River
009A	38° 23' 13 " N, 105° 00' 47.01" W	0.15	Internal Outfall (WWTF sump pump) for WWTF effluent to accommodate Outfalls 002A and 003A discharge	Arkansas River

With the changes in the receiving water (from Bear Creek to the Arkansas River), reduction in the design flows for outfalls 007A and 002A, and the removal of outfall 006A from the permit, the potential permit limitations changed. Therefore, the Division recalculated the permit limitations for nickel, selenium and zinc for outfall 007A and 002A. Due to the reduction in total discharge, the assimilative capacity available to the facility has been increased and therefore, no reasonable potential (RP) is expected for the other parameters that were previously not included in the permit due to no RP. For this reason, those parameters were not considered in this modification even though the Division included some calculations in the WQA prepared for this modification for future reference since there are changes to the permit.

a. Based on the potential limitations calculated and the recorded maximum discharge concentration for those parameters considered in this modification, the Division ran an RP analysis (Table 3).

Table 3. Reasonable potential analysis for the parameters considered in this modification

Pollutant	*Maximum of 30-Day Avg Effluent Conc. Or MEPC*	*30-Day Avg Proposed WQBEL*	*30-Day Avg RP*	*Maximum of Daily Max or 7-Day Avg Effluent Conc. Or MEPC*	*Daily Max or 7-Day Avg Proposed WQBEL*	*Daily Max RP*
Ni, Dis (µg/l)	370	8205	No Qual	370	54819	No Qual
Se, Dis (µg/l)	120	378	No Qual	120	1351	No Qual
Zn, Dis (µg/l)	100	8780	No Qual	100	16458	No Qual

Parameter analysis was conducted for:

Nickel: A qualitative RP analysis was based on the WQBEL for this parameter. A no RP determination has been made for this parameter since the potential limitation is significantly higher than the MEPC. It should be noted here that MEPC is based on a TR form of nickel and the dissolved form will be expected to be lower and therefore no limitation will be needed.

Selenium: A qualitative RP analysis was based on the WQBEL for this parameter. A no RP determination has been made for this parameter since the potential limitation is significantly higher than the MEPC. It should be noted here that MEPC is based on a TR form of selenium and the dissolved form will be expected to be lower and therefore no limitation will be needed.

Zinc: A qualitative RP analysis was based on the WQBEL for this parameter. A no RP determination has been made for this parameter since the potential limitation is significantly higher than the MEPC.

Due to changes in the design flow for Outfall 007A and more dilution being available from the Arkansas River also required recalculation of WET testing requirements for these outfalls (see below).

In-Stream Waste Concentration (IWC) (002A and 007A)– Where monitoring or limitations for WET are deemed appropriate by the Division, the chronic in-stream dilution is critical in determining whether acute or chronic conditions shall apply. In accordance with Division policy, for those discharges where the chronic IWC is greater than 9.1% and the receiving stream has a Class 1 Aquatic Life use or Class 2 Aquatic Life use with all of the appropriate aquatic life numeric standards, chronic conditions will normally apply. Where the chronic IWC is less than or equal to 9.1, or the stream is not classified as described above, acute conditions will normally apply. The chronic IWC is determined using the following equation:

$$IWC = [Facility\ Flow\ (FF)/(Stream\ Chronic\ Low\ Flow\ (annual) + FF)] \times 100\%$$

The flows and corresponding IWC for the appropriate discharge points are:

Permitted Feature	**Chronic Low Flow, 30E3 (cfs)**	**Facility Design Flow (cfs)**	**IWC, (%)**
002A and 007A	144	1.4	1

The IWC for outfall 002A and 007A is 1%, which represents a wastewater concentration of 1% effluent to 99% receiving stream. This means that an acute WET testing will be required for these outfalls.

General Information – The permittee should read the WET testing section of Part I of the permit carefully, as this information has been updated in accordance with the Division's updated policy, Implementation of the Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (Sept 30, 2010) . The permit outlines the test requirements and the required follow-up actions the permittee must take to resolve a toxicity incident. The permittee should also read the above mentioned policy which is available on the Permit Section website. The permittee should be aware that some of the conditions outlined above may be subject to change if the facility experiences a change in discharge, as outlined in Part II.A.2. of the permit. Such changes shall be reported to the Division immediately.

Item 3: Monitoring frequency at this point is based on the monitoring frequency at the outfall 009A which is based on the facility design flow, and therefore it is not related to what percentage of the design flow is used. However, since the facility did not discharge from outfall 009A since 7/31/2011, the Division believes reduced monitoring for both outfall 009A and inflow monitoring point 300I is warranted and therefore, monitoring requirements have been reduced to 'Quarterly'.

The Division changed the Stormwater language in Section I.B.4 of the permit to reflect that the facility applied for and received necessary permit coverage. The Division removed the Compliance Schedule Section in the permit since it is no longer needed.

Kenan Diker
February 7, 2013